

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

**Amendments to the Claims:**

This listings of claims 1-31 will replace all prior variations and listings of claims in the application:

**Listing of Claims:**

1 Claim 1 (original). A port security barrier system for protecting  
2 a port facility from a waterborne craft laden with explosives,  
3 said port security barrier system comprising:

4 (a) a plurality of port security barrier modules  
5 connected to one another to form a floating security barrier  
6 for said port facility having a length from about two  
7 hundred feet to about one mile;

8 (b) a plurality of mooring buoys, each of said  
9 plurality of mooring buoys being disposed between an  
10 adjacent pair of said port security barrier modules and  
11 connected to each of the adjacent pair of said port security  
12 barrier modules, said mooring buoys maintaining said port  
13 security barrier modules in a fixed position relative to  
14 said port facility to insure that said port facility is  
15 protected from said waterborne craft;

16 (c) each of said port security barrier modules

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

17 including:

18 (i) a longitudinal strength member;

19 (ii) a generally rectangular shaped capture net

20 extending vertically upward from said longitudinal strength

21 member, said capture net having a length approximately the

22 same as the length of said longitudinal strength member, and

23 a height which is sufficient to prevent said waterborne

24 craft from penetrating said port facility;

25 (iii) a net support structure extending vertically

26 upward from said longitudinal strength member, said net

27 support structure being attached to said longitudinal

28 strength member, said net support structure having said

29 capture net attached thereto;

30 (iv) a plurality of pontoons attached to said

31 longitudinal strength member and orientated perpendicular to

32 said longitudinal strength member, said pontoons for each of

33 said port security barrier modules keeping said port

34 security barrier system afloat in a seawater environment;

35 and

36 (v) an anti-kayak guard positioned below and attached

37 to said longitudinal strength member, said anti-kayak guard

38 preventing small watercraft from slipping under said port

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

39           security barrier system into said port facility.

1       Claim 2 (original). The port security barrier system of claim 1  
2       wherein each of said plurality of mooring buoys has one end of a  
3       mooring line connected thereto, said mooring line having at least  
4       two branches, each of the branches of said mooring line having an  
5       anchor connected thereto.

1       Claim 3 (original). The port security barrier system of claim 1  
2       wherein said capture net has a mesh structure, said mesh  
3       structure having a one foot square mesh size comprising  
4       horizontal boat stopping members consisting of a 1.125 inch  
5       diameter 12-Strand Braided nylon rope and vertical boat stopping  
6       members consisting of 0.75 inch diameter 12-Plait nylon, the  
7       horizontal boat stopping members of said capture net being  
8       interlaced with the vertical boat stopping members of said  
9       capture net to form the mesh structure of said capture net.

1       Claim 4 (original). The port security barrier system of claim 3  
2       wherein said capture net has a height of approximately eight feet  
3       and a width of approximately fifty two feet.

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

1 Claim 5 (original). The port security barrier system of claim 3  
2 wherein said capture net is fabricated from nylon to absorb  
3 energy from a waterborne craft which engages said capture net,  
4 said waterborne craft when engaging said capture net traveling at  
5 speeds of up to 52 knots and having a weight of around 10,000  
6 pounds.

1 Claim 6 (original). The port security barrier system of claim 1  
2 wherein said plurality of pontoons comprise three pontoons, a  
3 first and a second of said three pontoons being positioned at  
4 each end of said longitudinal strength member and a third of said  
5 three pontoons being position at the center of said longitudinal  
6 strength member, the first and the second of said three pontoons  
7 having an equal length, and the third of said three pontoons  
8 having a substantially greater length than the first and the  
9 second of said three pontoons.

1 Claim 7 (original). The port security barrier system of claim 1  
2 wherein said longitudinal strength member includes connector  
3 elements positioned at each end of said longitudinal strength  
4 member, said connector elements allowing a user of said port

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

5 security barrier system to connect each of said port security  
6 barrier modules to adjacent port security barrier modules.

1 Claim 8 (original). The port security barrier system of claim 7  
2 wherein one of said port security barrier modules operates as a  
3 gate, the connector elements of the one of said port security  
4 barrier modules operating as said gate  
5 allowing said user to open and close the one of said port  
6 security barrier modules operating as said gate.

1 Claim 9 (original). The port security barrier system of claim 1  
2 wherein said net support structure comprises:

3 first, second and third net support members attached  
4 to said longitudinal strength member, said first,  
5 second and third net support members extending  
6 vertically upward from said longitudinal strength  
7 member, said first net support member being positioned  
8 at one end of said longitudinal strength member, said  
9 second net support member being positioned at other end  
10 of said longitudinal strength member and said third net  
11 support member being positioned at the center of said  
12 longitudinal strength member;

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

13           a first angled support brace, said first angled support  
14           brace having one end attached to the bottom end of said  
15           first net support member and the other end attached  
16           near the top end of said third net support member; and  
17           a second angled support brace, said second angled  
18           support brace having one end attached to the bottom end  
19           of said second net support member and the other end  
20           attached near the top end of said third net support  
21           member.

1    Claim 10 (currently amended). The port security barrier system  
2    of claim 9 further comprising a warning light located near the  
3    top end of said third net support member and a light support  
4    bracket attached to said net support member, [said light support  
5    bracket being mounted on said light support bracket] said warning  
6    light being mounted on said light support bracket.

1    Claim 11 (currently amended). The port security barrier system  
2    of claim 9 further comprising:

3           a third angled support brace having one end attached to  
4           the top end of said first net support member and the  
5           other end attached to a first of said plurality of

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

pontoons;

a fourth angled support brace having one end attached to

the top end of said second net support member and the

other end attached to a second of said plurality of

pontoons; and

a fifth angled support brace having one end attached to the

top end of said third net support member and the other

end attached to a third of said plurality of pontoons.

Claim 12 (original). A port security barrier system for  
protecting a port facility from a waterborne craft laden with  
explosives, said port security barrier system comprising:

(a) a plurality of port security barrier modules  
connected to one another to form a floating security barrier  
for said port facility having a length from about two  
hundred feet to about one mile;

(b) a plurality of mooring buoys, each of said  
plurality of mooring buoys being disposed between an  
adjacent pair of said port security barrier modules and  
connected to each of the adjacent pair of said port security  
barrier modules, said mooring buoys maintaining said port  
security barrier modules in a fixed position relative to

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

14 said port facility to insure that said port facility is  
15 protected from said waterborne craft;

16 (c) each of said port security barrier modules  
17 including:

18 (i) a longitudinal strength member;

19 (ii) a generally rectangular shaped capture net  
20 extending vertically upward from said longitudinal strength  
21 member, said capture net having a length approximately the  
22 same as the length of said longitudinal strength member, and  
23 a height which is sufficient to prevent said waterborne  
24 craft from penetrating said port facility, said capture net  
25 having a mesh structure, said mesh structure having a one  
26 foot square mesh size comprising horizontal boat stopping  
27 members consisting of a 1.125 inch diameter 12-Strand  
28 Braided nylon rope and vertical boat stopping members  
29 consisting of 0.75 inch diameter 12-Plait nylon, the  
30 horizontal boat stopping members of said capture net being  
31 interlaced with the vertical boat stopping members of said  
32 capture net to form the mesh structure of said capture net;  
33 (iii) a net support structure extending vertically  
34 upward from said longitudinal strength member, said net  
35 support structure being attached to said longitudinal



Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

36 strength member, said net support structure having said  
37 capture net attached thereto;  
38 (iv) a first pontoon, a second pontoon and a third  
39 pontoon orientated perpendicular to said longitudinal  
40 strength member and attached thereto, said first pontoon  
41 being positioned at each one end of said longitudinal  
42 strength member, said second pontoon being positioned at the  
43 opposite end of said longitudinal strength member and said  
44 third pontoon being position at the center of said  
45 longitudinal strength member, said first pontoon and said  
46 second pontoon having an equal length, and said third  
47 pontoon having a substantially greater length than said  
48 first pontoon and said second pontoon, said first pontoon,  
49 said second pontoon and said third pontoon for each of said  
50 port security barrier modules keeping said port security  
51 barrier system afloat in a seawater environment; and  
52 (v) an anti-kayak guard positioned below and attached  
53 to said longitudinal strength member, said anti-kayak guard  
54 preventing small watercraft from slipping under said port  
55 security barrier system into said port facility.

1 Claim 13 (original). The port security barrier system of claim

Appl. No. 10/828,533  
Amdt. dated: August 29, 2007  
Reply to Office action of August 21, 2007

12 wherein each of said plurality of mooring buoys has one end of  
a mooring line connected thereto, said mooring line having at  
least two branches, each of the branches of said mooring line  
having an anchor connected thereto.

Claim 14 (original). The port security barrier system of claim 12  
wherein said capture net has a height of approximately eight feet  
and a width of approximately of fifty two feet.

Claim 15 (original). The port security barrier system of claim  
12 wherein said capture net is fabricated from nylon to absorb  
energy from a waterborne craft which engages said capture net,  
said waterborne craft when engaging said capture net traveling at  
speeds of up to 52 knots and having a weight of around 10,000  
pounds.

Claim 16 (original). The port security barrier system of claim  
12 wherein said longitudinal strength member includes connector  
elements positioned at each end of said longitudinal strength  
member, said connector elements allowing a user of said port  
security barrier system to connect each of said port security  
barrier modules to adjacent port security barrier modules.

Appl. No. 10/828,533  
Amdt. dated: August 29, 2007  
Reply to Office action of August 21, 2007

1 Claim 17 (original). The port security barrier system of claim  
2 16 wherein one of said port security barrier modules operates as  
3 a gate, the connector elements of the one of said port security  
4 barrier modules operating as said gate allowing said user to open  
5 and close the one of said port security barrier modules operating  
6 as said gate.

1 Claim 18 (currently amended). The port security barrier system  
2 of claim 12 wherein said net support structure comprises:

3 first, second and third net support members attached  
4 to said longitudinal strength member, said first,  
5 second and third net support members extending  
6 vertically upward from said longitudinal strength  
7 member, said first net support member being positioned  
8 at one end of said longitudinal strength member, said  
9 second net support member being positioned at other end  
10 of said longitudinal strength member and said third net  
11 support member being positioned at the center of said  
12 longitudinal strength member;

13 a first angled support brace, said first angled support  
14 brace having one end attached to the bottom end of said

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

first net support member and the other end attached  
near the top end of said third net support member;  
a second angled support brace, said second angled  
support brace having one end attached to the bottom end  
of said second net support member and the other end  
attached near the top end of said third net support  
member;  
a third angled support brace having one end attached to  
the top end of said first net support member and the  
other end attached to said first pontoon;  
a fourth angled support brace having one end attached to  
the top end of said second net support member and the  
other end attached to said second pontoon; and  
a fifth angled support brace having one end attached to the  
top end of said third net support member and the other  
end attached to said third pontoon.

Claim 19 (original). The port security barrier system of claim  
18 further comprising a warning light located near the top end of  
said third net support member and a light support bracket  
attached to said net support member, [said light support bracket  
being mounted on said light support bracket] said warning light

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

6 being mounted on said light support bracket.

1 Claim 20 (original). The port security barrier system of claim  
2 12 wherein each of said port security barrier modules has a tow  
3 brace assembly for providing stability for said port security  
4 barrier module when said port security barrier module is being  
5 towed at sea, said port security barrier module having first and  
6 second towing braces, said first towing brace having one end  
7 attached to the center of said first pontoon and the opposite end  
8 attached to the rear of said third pontoon and said second towing  
9 brace having one end attached to the center of said second  
10 pontoon and the opposite end attached to the rear of said third  
11 pontoon.

1 Claim 21 (new). A port security barrier system for protecting a  
2 port facility from a waterborne craft laden with explosives, said  
3 port security barrier system comprising:

4 (a) a plurality of port security barrier modules connected  
5 to one another to form a floating security barrier for said  
6 port facility having a length from about two hundred feet to  
7 about one mile;

8 (b) a plurality of mooring buoys, each of said plurality of

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

9 mooring buoys being disposed between an adjacent pair of  
10 said port security barrier modules and connected to each of  
11 the adjacent pair of said port security barrier modules,  
12 said mooring buoys maintaining said port security barrier  
13 modules in a fixed position relative to said port facility  
14 to insure that said port facility is protected from said  
15 waterborne craft;

16 (c) each of said port security barrier modules including:

17 (i) a longitudinal strength member;

18 (ii) a generally rectangular shaped capture net extending

19 vertically upward from said longitudinal strength member,

20 said capture net having a length approximately the same as

21 the length of said longitudinal strength member, and a

22 height which is sufficient to prevent said waterborne craft

23 from penetrating said port facility;

24 (iii) a net support structure extending vertically upward

25 from said longitudinal strength member, said net support

26 structure being attached to said longitudinal strength

27 member, said net support structure having said capture net

28 attached thereto; and

29 (iv) a plurality of pontoons attached to said longitudinal

30 strength member and orientated perpendicular to said

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

31        longitudinal strength member, said pontoons for each of said  
32        port security barrier modules keeping said port security  
33        barrier system afloat in a seawater environment.

1        Claim 22 (new). The port security barrier system of claim 21  
2        wherein each of said plurality of mooring buoys has one end of a  
3        mooring line connected thereto, said mooring line having at least  
4        two branches, each of the branches of said mooring line having an  
5        anchor connected thereto.

1        Claim 23 (new). The port security barrier system of claim 21  
2        wherein said capture net has a mesh structure, said mesh  
3        structure having a one foot square mesh size comprising  
4        horizontal boat stopping members consisting of a 1.125 inch  
5        diameter 12-Strand Braided nylon rope and vertical boat stopping  
6        members consisting of 0.75 inch diameter 12-Plait nylon, the  
7        horizontal boat stopping members of said capture net being  
8        interlaced with the vertical boat stopping members of said  
9        capture net to form the mesh structure of said capture net.

1        Claim 24 (new). The port security barrier system of claim 23

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

wherein said capture net has a height of approximately eight feet  
and a width of approximately fifty two feet.

Claim 25 (new). The port security barrier system of claim 23  
wherein said capture net is fabricated from nylon to absorb  
energy from a waterborne craft which engages said capture net,  
said waterborne craft when engaging said capture net traveling at  
speeds of up to 52 knots and having a weight of around 10,000  
pounds.

Claim 26 (new). The port security barrier system of claim 21  
wherein said plurality of pontoons comprise three pontoons, a  
first and a second of said three pontoons being positioned at  
each end of said longitudinal strength member and a third of said  
three pontoons being position at the center of said longitudinal  
strength member, the first and the second of said three pontoons  
having an equal length, and the third of said three pontoons  
having a substantially greater length than the first and the  
second of said three pontoons.

Claim 27 (new). The port security barrier system of claim 21  
wherein said longitudinal strength member includes connector



Appl. No. 10/828,533  
Amdt. dated: August 29, 2007  
Reply to Office action of August 21, 2007

elements positioned at each end of said longitudinal strength member, said connector elements allowing a user of said port security barrier system to connect each of said port security barrier modules to adjacent port security barrier modules.

Claim 28 (new). The port security barrier system of claim 27 wherein one of said port security barrier modules operates as a gate, the connector elements of the one of said port security barrier modules operating as said gate allowing said user to open and close the one of said port security barrier modules operating as said gate.

Claim 29 (new). The port security barrier system of claim 21 wherein said net support structure comprises:

first, second and third net support members attached to said longitudinal strength member, said first, second and third net support members extending vertically upward from said longitudinal strength member, said first net support member being positioned at one end of said longitudinal strength member, said second net support member being positioned at other end of said longitudinal strength member and said third net

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

18           support member being positioned at the center of said  
19           longitudinal strength member;  
20           a first angled support brace, said first angled support  
21           brace having one end attached to the bottom end of said  
22           first net support member and the other end attached  
23           near the top end of said third net support member; and  
24           a second angled support brace, said second angled  
25           support brace having one end attached to the bottom end  
26           of said second net support member and the other end  
27           attached near the top end of said third net support  
28           member.

1   Claim 30 (new). The port security barrier system of claim 29  
2   further comprising a warning light located near the top end of  
3   said third net support member and a light support bracket  
4   attached to said net support member, said warning light being  
5   mounted on said light support bracket.

1   Claim 31 (new). The port security barrier system of claim 29  
2   further comprising:  
3           a third angled support brace having one end attached to  
4           the top end of said first net support member and the

Appl. No. 10/828,533

Amdt. dated: August 29, 2007

Reply to Office action of August 21, 2007

5           other end attached to a first of said plurality of  
6           pontoons;

7           a fourth angled support brace having one end attached to

8           the top end of said second net support member and the

9           other end attached to a second of said plurality of

10          pontoons; and

11          a fifth angled support brace having one end attached to the

12          top end of said third net support member and the other

13          end attached to a third of said plurality of pontoons.